



FIG. 1

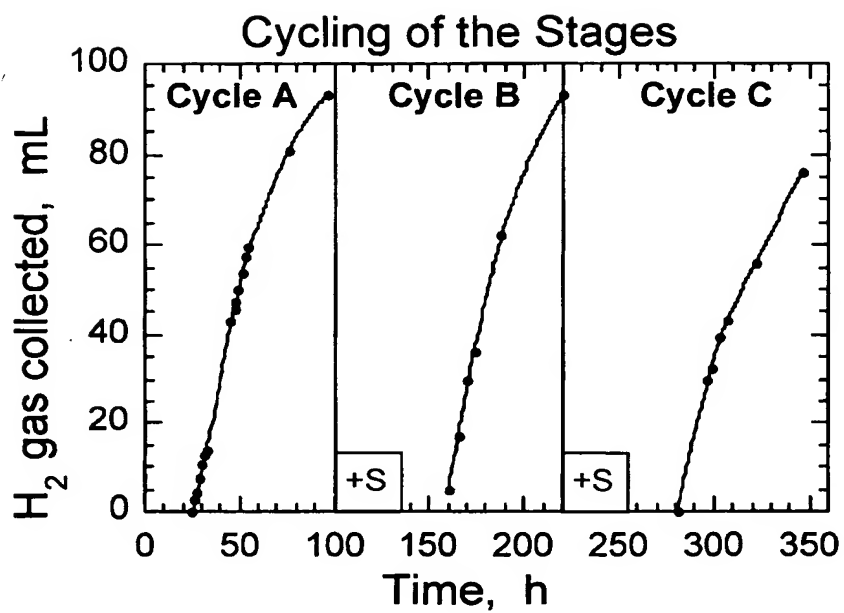


FIG. 2

*Chlamydomonas reinhardtii* chloroplast Sulfate Permease (*SulP*) gene structure

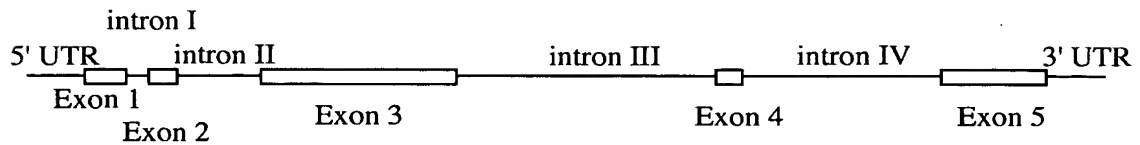


FIG. 3

*reinhardtii* chloroplast Sulfate Permease (*SulP*) amino acid sequence

MERVCSHQLASSRGRPCIAGVQRSPIRLGTSSVAHVQVSPAGLG RYQRQRLQVVASAAAA  
AAFDPPGGVSAGFSQPQQQLPQQHPRQPQAVAEVAVAESVSAPASAAPSNDGSPTASMDG  
GPSSGLSAVPAAATATDLFSAAARLRLPNLSPIITWTFMLS YMAFMLIMPITALLQKASL  
VPLNVFIARATEPVAMHAYYVTFSCSLIAAAINCVFGFVLAWVLVRYNFA GKKILDAAVD  
LPFALPTSVAGLTLATVYGDEFFIGQFLQAQGVQVVFTRLGVVIAMIFVSFPFVVRTMQP  
VMQEIQKEMEEAAWSLGASQWRFTFDVVLPPLLPALLTGTALAFSRALGEFGSIVIVSSN  
FAFKDLIAPVLIFQCLEQYDYVGATVIGTVLLLISLVMMLAVNQLQKLARK\* (SEQ ID NO:1)

## FIG. 4A

### Coding sequence of CrepSulP

5' UTR:173 bp, Exon1: 124 bp, intronI: 77 bp, Exon2: 78 bp,  
intronII: 279 bp Exon3: 620 bp, intronIII: 834 bp,  
Exon4: 87 bp, intronIV: 699 bp, Exon5: 327 bp, 3'UTR: 575 bp

Total length: 3873 bp

```

gcttagtacc taagcaaaaa taccaaagcc ttatcctgag ttgtcaacaa gaactccagc 60
ctgcgacgat gcaaagcctt tcttgagcgg gttgatggac tttgctttgt tatctgtcca 120
gtaagccacc agacactacc aagtagagta atccatttgt ataggtagag aatauggagc 180
gagtttgacg ccatcagcctt gcctcgctcg gagggaggcc atgcatcgct ggggtgcagc 240
ggtcgcccac ccgactaggg acttcaagcg ttgctcatgt gcaggctctc ccggcaggta 300
agcaccgcgc tcggcgggcg gtacacatgg ggccgtcagg ccaactgcgt ttgttggcta 360
tgcaaccgaa acaggccttg ggagatatca acggcaaaga ctgcaagtcg tggcgtctgc 420
agctgcggca gcggcctttg accctcctgg aggtgcgtgg cgtgagggct gcacgggtgc 480
gggttggcct ggaaaccaag cctcgccacg actacctgca acagcattgc ccgcattctc 540
agcccctcac cctogagtgc ctcccgaaga cctctatccc ctgcgcacga ttgggttcggg 600
ggcgccgcct gcgggccttg ggcgtggct acgctgaccg cacggcacga cttggcacgg 660
cctggcgcgg cctgagcggc cccccccctc ctgatggccc cacgctttgc cggccacgcc 720
gctccccgca ggtgtctccg ccgggttctc gcagccgcaa cagcagctgc cacaacagca 780
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cggcctcagc gccgtgcccg ccgcgcgcc acgccaccgac ctcttctccg ccgcggcgcg 960
cctccgcctg cccaacctct ccccatcat cacctggacc ttcattgctc cctacatggc 1020
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aagaggacga acatggggct atccagcaag ctctgctagg gaaggaggag tttgggagaa 1500
cgttgggggt ggaggagag ggaggcggtt ggctgggagg gaagggtgag gcgggaggga 1560
gatggttagc cggggcggtt gggacgcaga aggatgacag gcggctgcag ggaagggatg 1620
gggaagcggg gctggggaca gtgcgaagag ccgggagaga ggggaagttt gagttaggaa 1680
gaggggctag agaggggcat gcggactcct gctgggattt aggtgcgtgc tcatttagga 1740
gcccttgga tcagcggaag gaaacgtggc gcagggggtc tgccgagcac accaggctag 1800
ctagacgcgc ggttgggcaa cgagcagagc tgctgtgcgg ctatggatgg aaggcgatgc 1860
agcgagcatg tgcagtgaac attggtttga ggacagggga ctccgaggtt gcataggcgg 1920
gccgccactg tctctgcgc tagggtgact agctgcctcg aacctggcgg tggcccata 1980
cccgcagttg gaggatgctc cacgcgttc agcttgccat gtctggggtc tgggtctgga 2040
cgcaatcagc gtgtgagggt ccaactctat atggaattat ggatacctc caactaccag 2100
cacgtaggct gccggaacgc ggctgaagcg gctggcctgc cccctcatcc tctcgttccc 2160

```

FIG. 4B

ctgtttttgt	cccctgtcca	cccaggtggt	gttcacgcgg	ctgggtgtgg	tgatcgccat	2220
gatcttcgtg	tccttcccct	tcgtggtgcg	caccatgcag	cccgtcatgc	aggtgagagc	2280
gccagggagg	cggagccatg	gcgggttggg	gcgggttggg	gcgggttggg	gcggggcgcg	2340
gatggggcgg	cttggggagt	aatgtggggc	ggatgggggtg	gcagcctggc	agggtatggg	2400
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gcgagcaaag	ggggatatgg	aaccggcggt	tggggctggg	agcgacggga	gcagggaggg	2520
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cgttggacac	gacttcgttg	acagatctag	ttcattgcac	ccgggtcgca	ccaaggtggg	2760
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cttccccctc	caacgccacc	acgtgcaaca	ggaaatccaa	aaggagatgg	aggaggcggc	3000
atggtcgctg	ggcgctcgc	agtggcgcac	cttcacagac	gtggtgctgc	cgccgctgct	3060
gcccgcgctg	ctgaccggca	cggcactggc	cttctcgcgc	gcgcttggcg	agttcggatc	3120
cattgtcatc	gtgtcctcca	actttgcctt	caaggacctg	atcgcgcccg	tgtgatctt	3180
ccagtgcctg	gagcagtagc	actacgtggg	cgccaccgtg	atcggcacag	tactgctgtt	3240
gatttcgctg	gtgatgatgt	tggcggtgaa	ccagctgcag	aagctggcgc	gcaagtgagg	3300
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acgtattagg	atatgggagg	tggtatgcag	ttgaaggggg	gggtggcaat	ctggacgggg	3540
actcactggt	tactaggcac	gcatgtcgca	ggagtggata	tcgatgggtg	tggggatgtc	3600
agcacgcttg	gcttgagttg	ggccatggga	cccgggacta	ggcttgggtg	cgagccgagc	3660
cagtcaccag	ggagacgtac	gagcgcacac	agtgattacg	gggattgatt	aggcggcgaa	3720
ttgacgcaaa	tccacggggg	ctgtggcttg	ggggaggcag	ggattgagcg	aaggacgcac	3780
tgcaagctca	ggcagtcgca	tgccgtacc	ctgcttctgg	tccagtgtgg	agacaagact	3840
ggcaatcggt	gtcctttgca	attcatggcg	cgc (SEQ ID NO:2)			

## FIG. 5

Full length cDNA sequence of *CrcpSulP*: 1984 bp

```

gcttagtacc taagcaaaaa taccaaagcc ttatcctgag ttgtcaacaa gaactccagc 60
ctgcgacgat gcaaagcctt tcttgagcgg gttgatggac tttgctttgt tatctgtcca 120
gtaagccacc agacactacc aagtagagta atccatttgt ataggtacag aatatggagc 180
gagtttgagc ccatcagctt gcctcgtcgc gagggaggcc atgcatcgct ggggtgcagc 240
ggtcgcccat ccgactaggg acttcaagcg ttgctcatgt gcaggtctct ccggcaggcc 300
ttgggagata tcaacggcaa agactgcaag tcgtggcgtc tgcagctcgc gcagcggctt 360
tcgaccctcc tggaggtgtc tccgcggggt tctcgcagcc gcaacagcag ctgccacaac 420
agcaccacag ccaaccacag gcggtggcgg aggtagctgt cgccgagtcg gtctcggcgc 480
ccgcttctgc ggcgccctcc aatgatggct cgcacagcgc ctccatggac ggcggcccca 540
gctcggcct cagcgcctg ccgcgcgcgc ccacgcgcac cgacctcttc tccgcgcggc 600
cgcgcctccg cctgccaac ctctccccc tcatcacctg gaccttcctg ctctcctaca 660
tggccttcct gctcatcatg cccatcaccc cgtcgtgca aaaagcctcg ctcgtgcgc 720
tcaacgtctt catcgcgcg gccaccagc cgggtggcgt gcacgcctac tacgtcacct 780
tctcctgctc gctgatcgcg gcgcgccatc actgcgtgtt tggcttcgtg ctggcctggg 840
tgctggtgcg ctacaatttc gcggggaaga agatcctgga cgcggcggtg gacctgcctg 900
tcgcgctgcc gacctcgtg gcgggcctca cgttgccac ggtgtacggc gacgagttct 960
tcatcgcca gttcctgcag gcgcaggcgg tgcagggtgt gttcacgcgg ctgggtgtgg 1020
tgatcgccat gatcttcgtg tcttccccct tcgtggtgcg caccatgcag ccgctcatgc 1080
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ccttcacaga cgtggtgctg ccgcgcgtgc tgccgcgtt gctgaccggc acggcactgg 1200
ccttctcgcg cgcgcttggc gagttcggat ccattgtcat cgtgtcctcc aactttgcct 1260
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accagctgca gaagctggcg cgcaagttag gggctgaggc gtttgaggag agtgggcgtc 1440
tgcgaggcgg cttgtggcgc aggggcaggt ggaggagggt gcagggtgag gcaggagtgg 1500
cagggtggtg aggtgagcgc gcggggtgtt gggatgggat gggatgggac cgtgggaggg 1560
gtgggacttt ggggtgggtg gagtgggtgc tacgtattag gatatgggag gtggtatgca 1620
gttgaagggg ggggtggcaa tctggacggg gactcactgt ttactaggca cgcatgtcgc 1680
aggagtggat atcgatgggt gtggggatgt cagcacgctt ggcttgagtt gggccatggg 1740
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cagtgattac ggggattgat taggcggcga attgacgcaa atccacgggg gctgtggctt 1860
gggggaggca gggattgagc gaaggacgca ctgcaagctc aggcagtcgc atgcccgtac 1920
cctgcttctg gtccagtgtg gagacaagac tggcaatcgt ggtcctttgc aattcatggc 1980
gcgc

```

(SEQ ID NO: 3)

FIG. 6

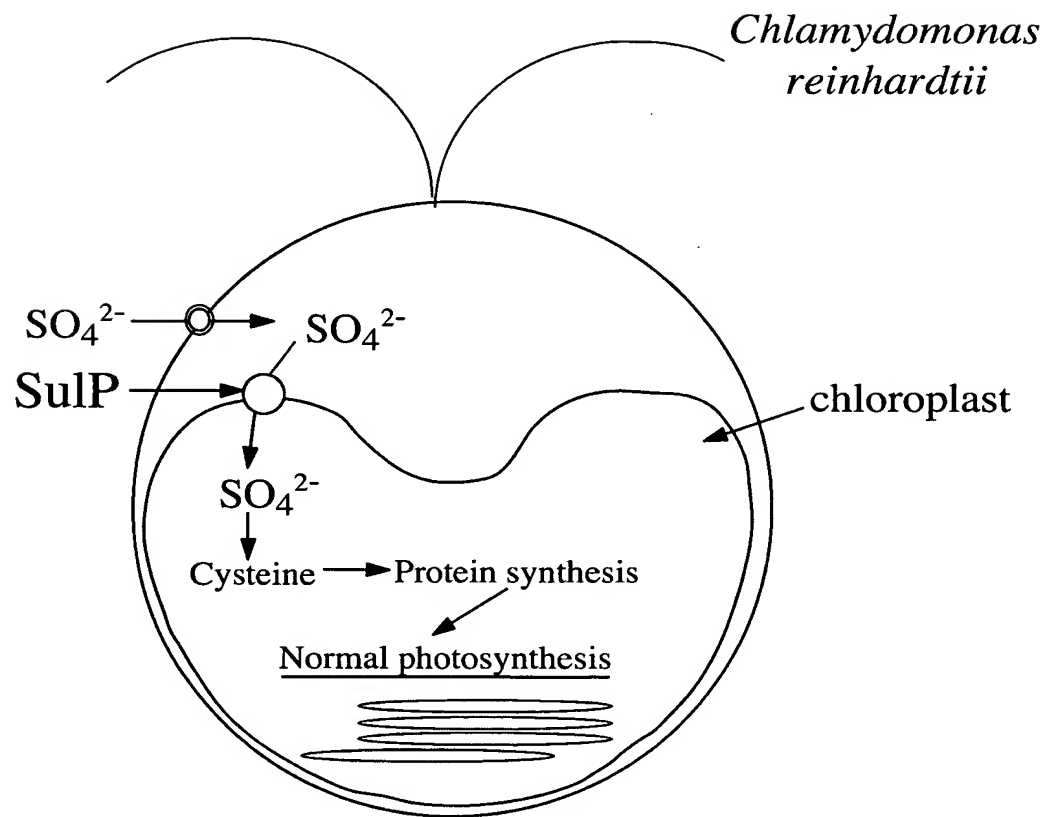


FIG. 7A

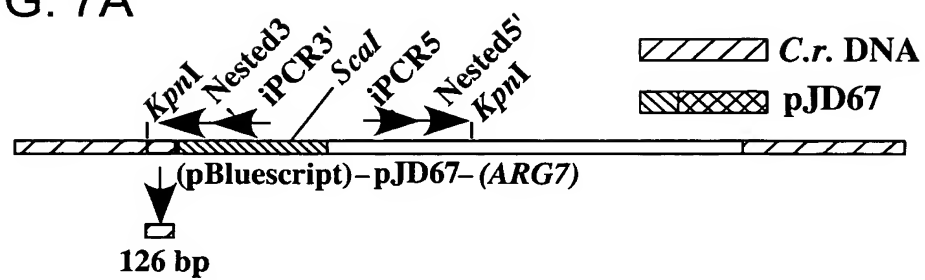


FIG. 7B

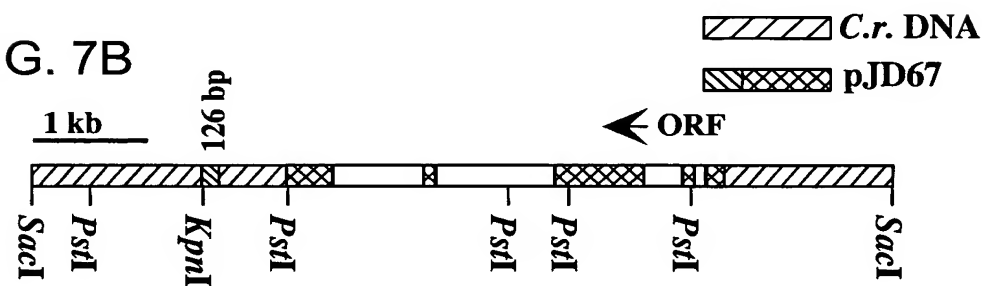


FIG. 8A

Nephroselmis	-----	
Mesostigma	-----	
Chlamydomonas	MERVCSHQLASSRGRPCIAGVQSPIRLGTSSVAHVQVSPAGLGRYQRRLQVVASAAA 60	
Chlorella	-----	
Syn. PCC7942	-----	
Marchantia	-----	
Bacillus	-----	
Nephroselmis	-----	
Mesostigma	-----	
Chlamydomonas	AAFDPPGGVSAGFSQPQQQLPQQHPRPQQAQAEVAESVAPASAPSNDSPTASMDG 120	
Chlorella	-----	
Syn. PCC7942	-----	
Marchantia	-----	
Bacillus	-----	
Nephroselmis	-----	
Mesostigma	-----	
Chlamydomonas	GPSSGLSAPAAATATDLFSAARLRPLPNLSPIITWTFLSYMAFMILIPITALLSRASQ 50	
Chlorella	-----	
Syn. PCC7942	-----	
Marchantia	-----	
Bacillus	-----	
Nephroselmis	-----	
Mesostigma	-----	
Chlamydomonas	ESVSEFVSIATAPVAMSAYAVTLSSALIAALLNGVFGLLIAWLVRYEFPGRRLDAAVD 110	
Chlorella	-----	
Syn. PCC7942	-----	
Marchantia	-----	
Bacillus	-----	



FIG. 8B

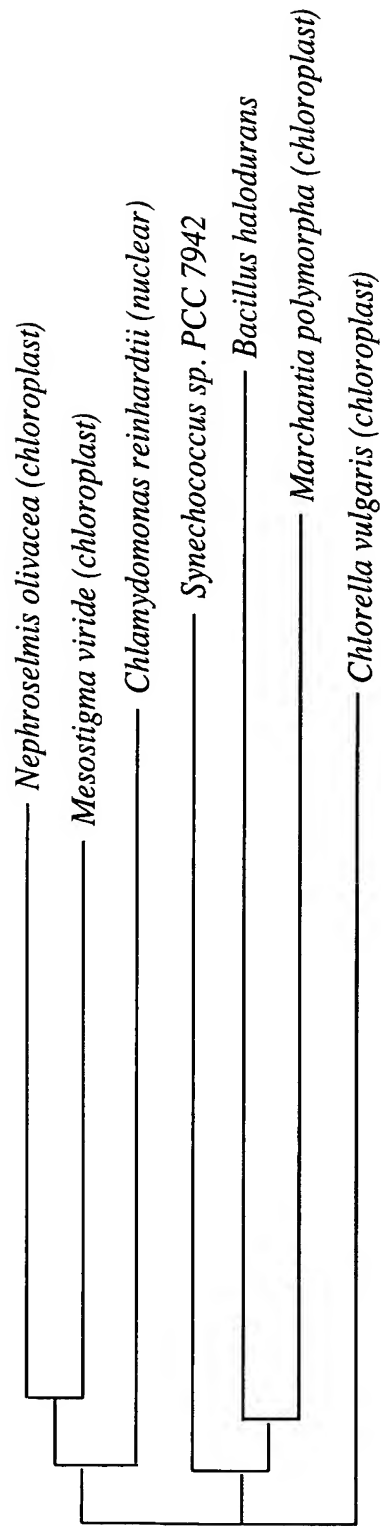


FIG. 9

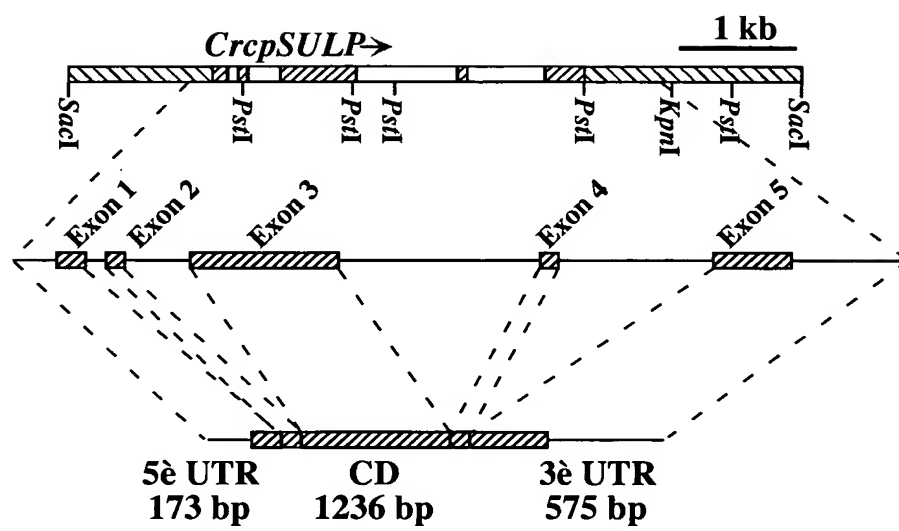


FIG. 10

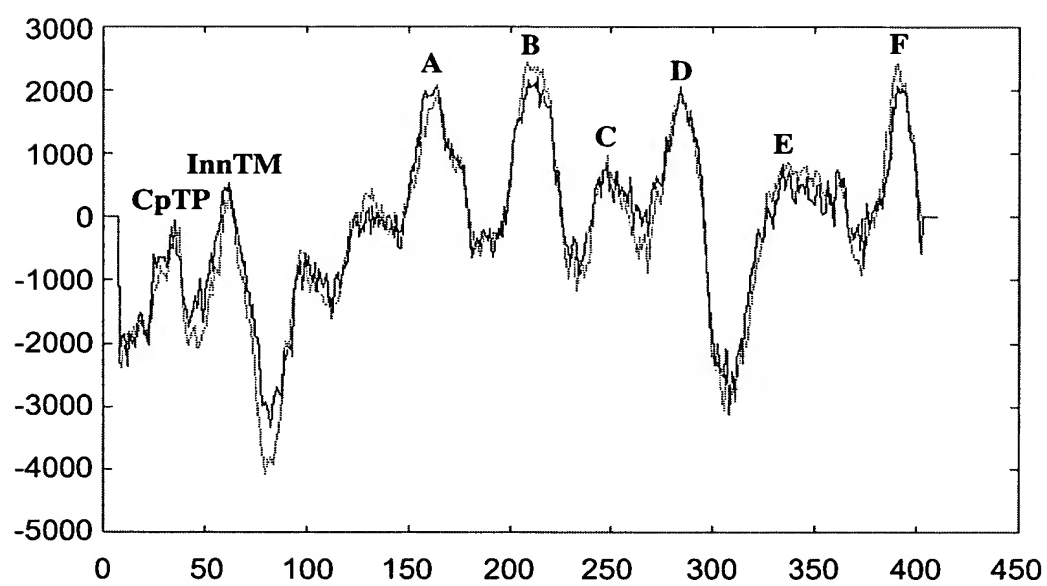


FIG. 11A

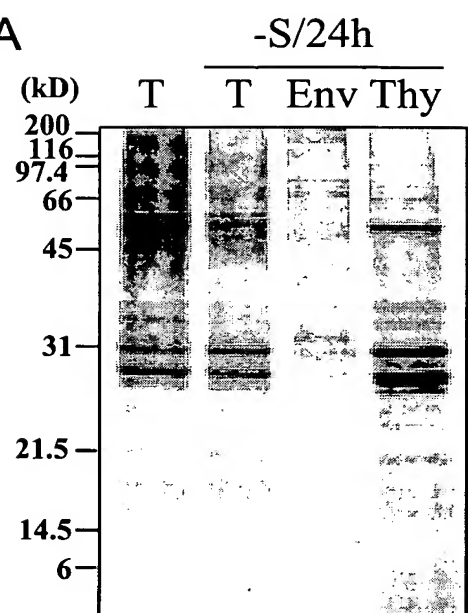


FIG. 11B

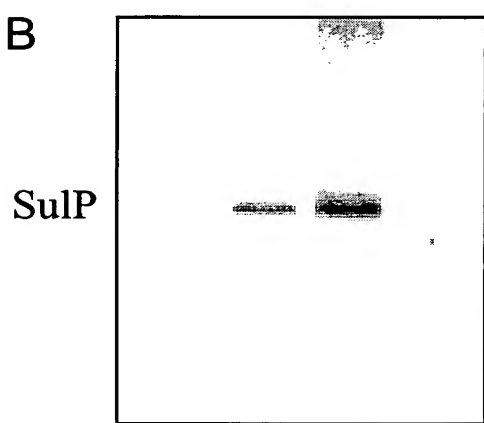


FIG. 12A

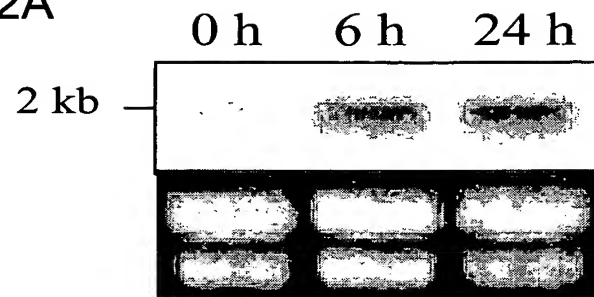


FIG. 12B

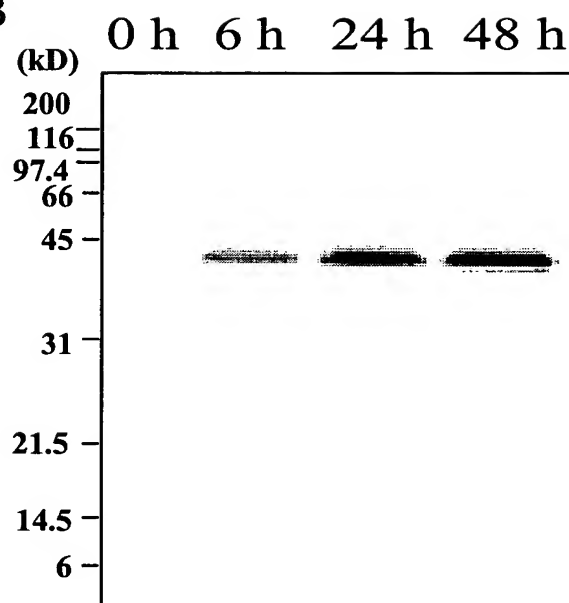


FIG. 13

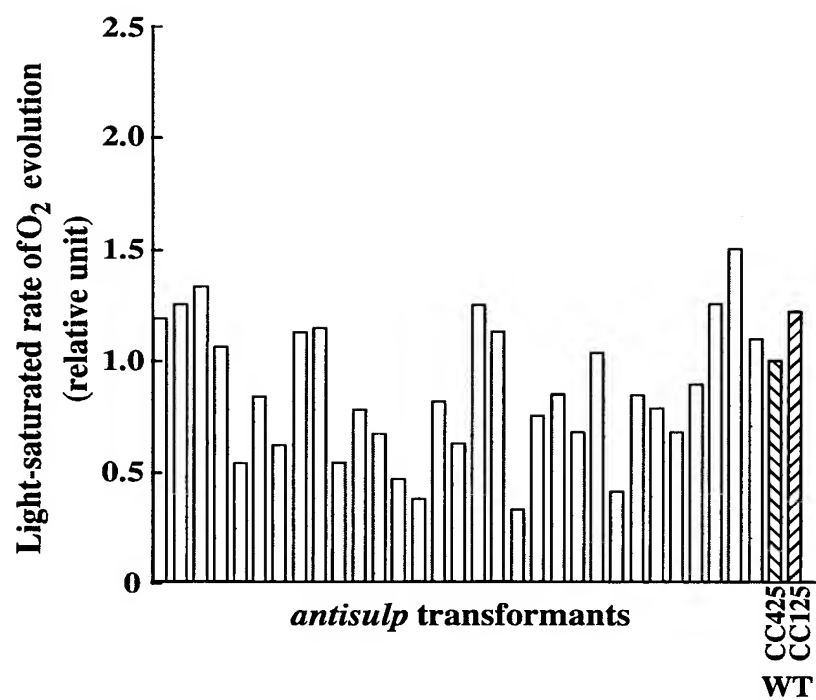


FIG. 14A

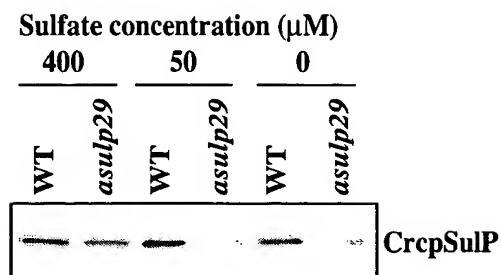


FIG. 14B

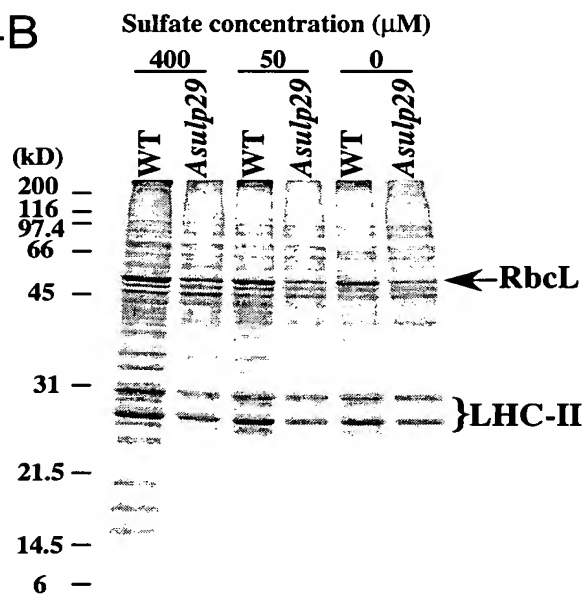


FIG. 14C

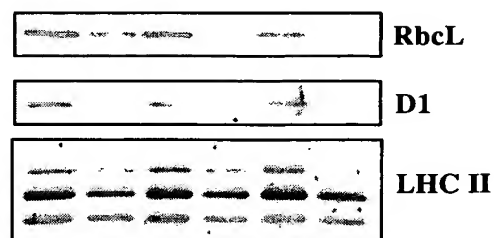


FIG. 15A

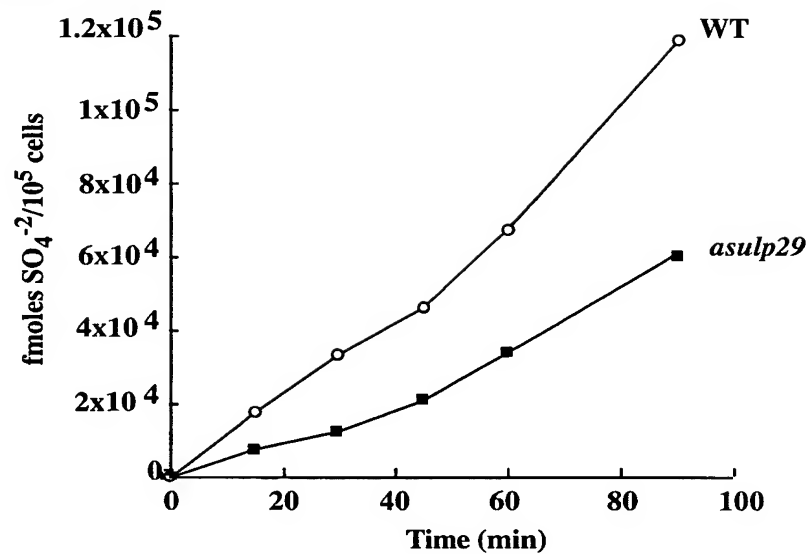
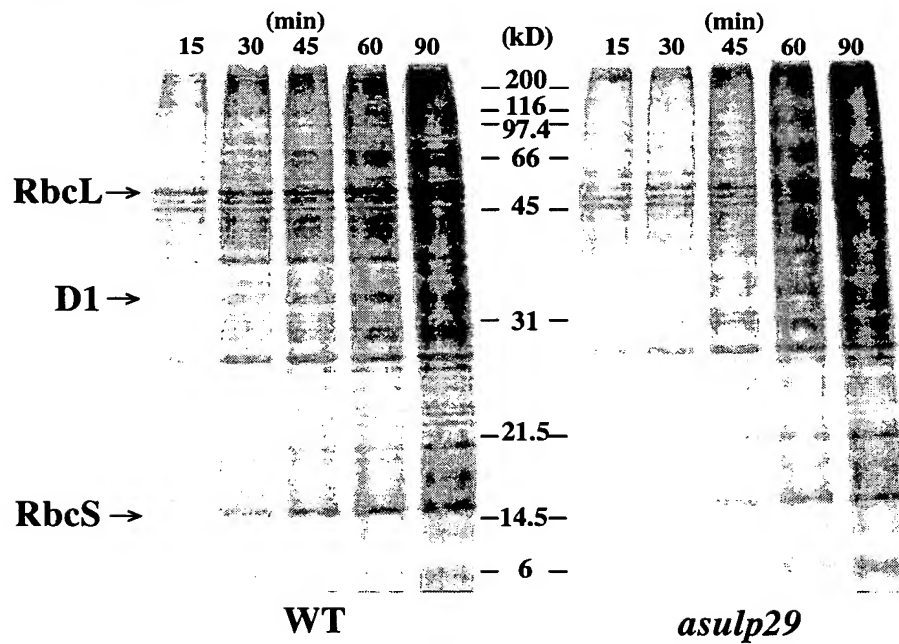


FIG. 15B



400  $\mu\text{M}$  S  
(TAP,  $S_{400}$ )

150  $\mu\text{M}$  S  
(TAP,  $S_{150}$ )

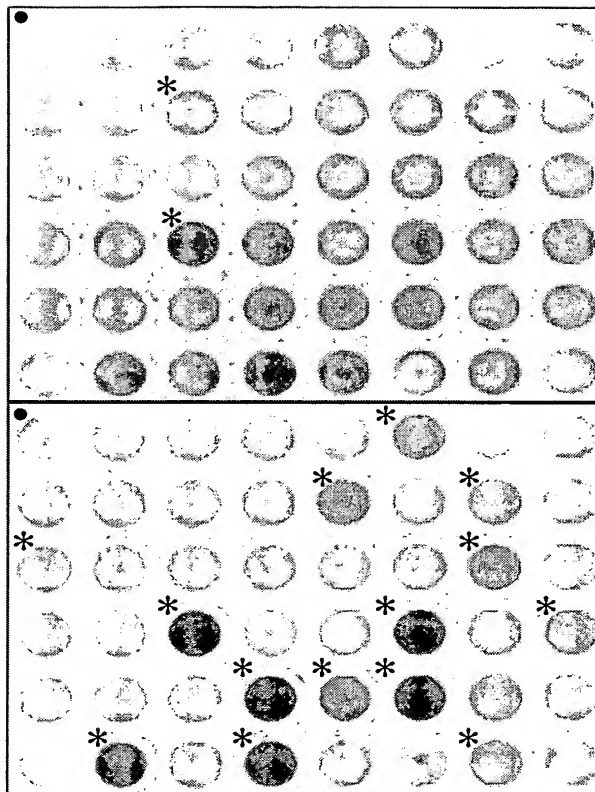


FIG. 16

FIG. 17

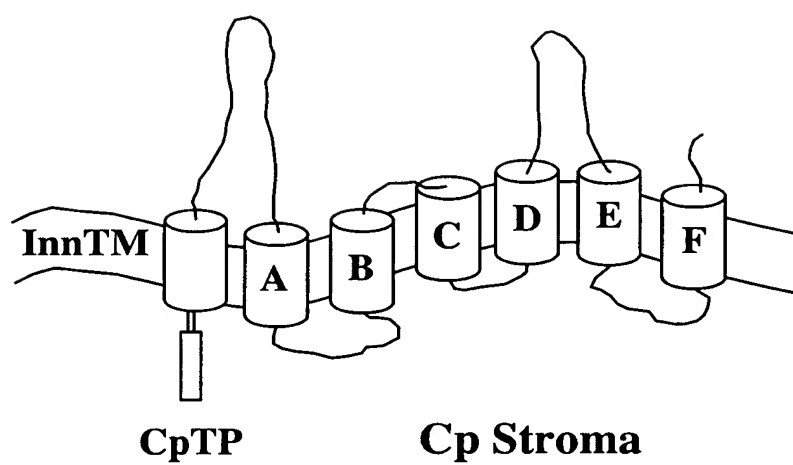


FIG. 18A

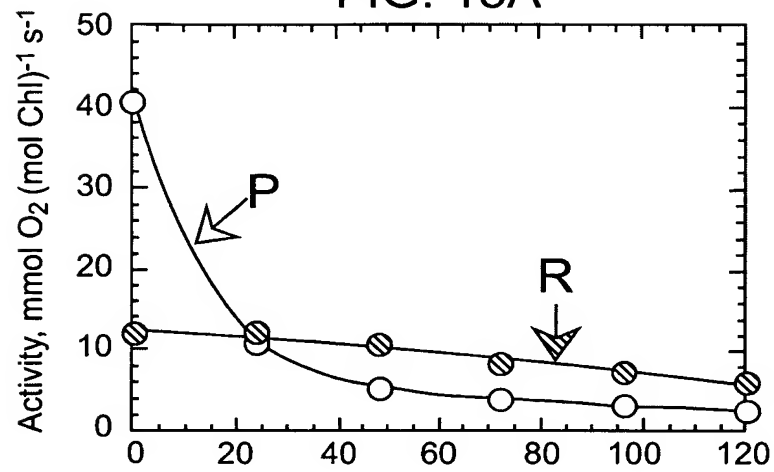


FIG. 18B

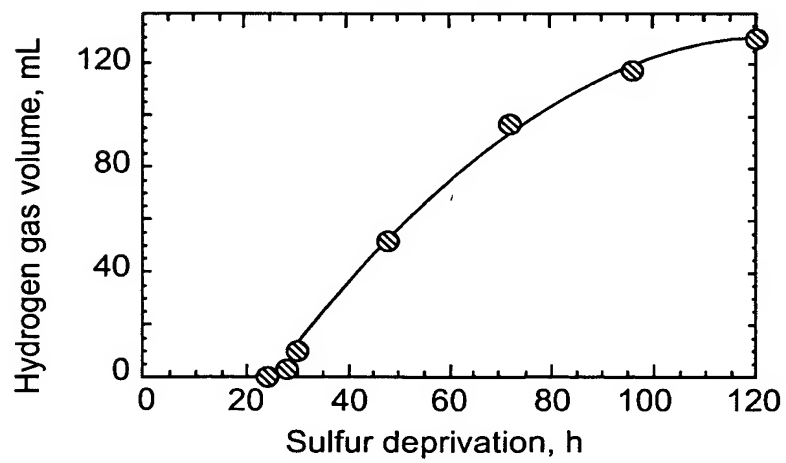


FIG. 19

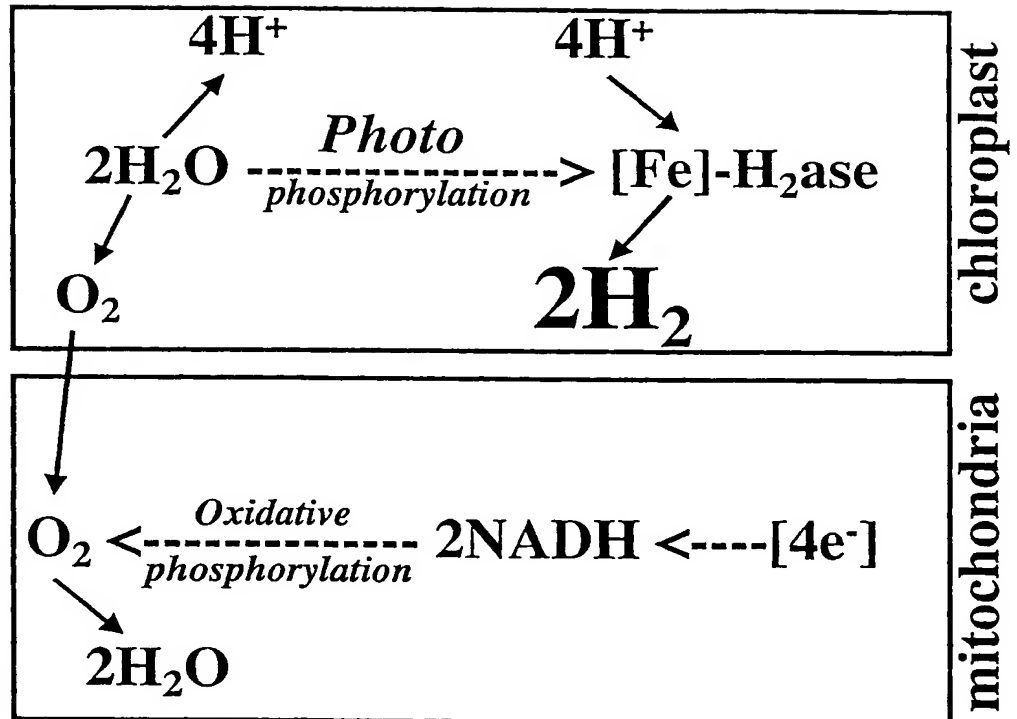
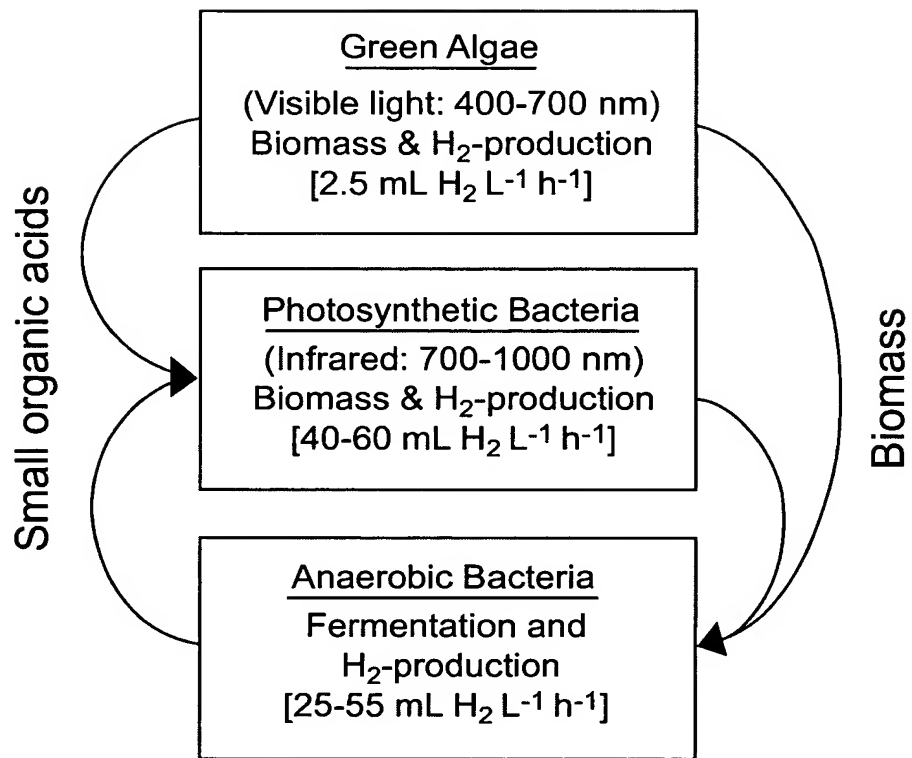


FIG. 20





GTACTTCAATTGTCAGAATGGCGTCGCTGCTCGCTCAAAACAACATCGCGCCTTGGCGCTCGCCAGCTGCGCAA  
GCTGGCCCTGTGCCCCAAATGGCACCGATGGCAAGCCGAGTGCAGCCGGCGATGCCTAGCGCGCTGCTCCCACT  
GCACGCCAGAGCGACAACAACCTTCAGTCGCTTGCCGGGCAGCCAGCATCGACAAACCTGTGCTTTACACTCCTC  
GAGATTTCGTGCAACAGTCTCTCAATGGGGCAGGAGAAGTGTCCATGTCCATATCATCCATGGACGAGGTTGGA  
CCCTCTTATGAGGGAATCATTACAGACGCGCCTACACGACCAACGGGGCTTTATGTGCGGGTGCGCAACATGGT  
GAAGCACTTCAGCACCGCCAAAGGCCTGTTTCAAGGGCGGTGGACGGCGTGGACGTGGACATCGAGCCCAGCTCCA  
TCGTGGCGCTGCTGGGGCCAGCGGCAGCGGCAAGACCACATTGCTGCGCCTCATTGCAGGCCTGGAGCAGCCC  
ACGGGCGGCAACATCTACTTTGACGACACGGACGCGACCAACCTGTCCGTCCAGGACCGCCAGATCGGCTTCGT  
GTTCCAGAGCTATGCGCTGTTCAACCACAAGACAGTTGCGGAGAACATCAAGTTTGGA CTGGAGGTGCGCAAGC  
TCAACATCGACCACGACAAGCGCGTGGCGGAGCTGCTGGCGCTGGTGCAGCTCACCGGCCTGGGCGACCGCTAC  
CCGCGCCAACCTGTGCGGCGGCCAGCGGCAGCGTGTGGCGCTGGCGCGCGCCCTGGCCTCCAACCCGCGGCTGCT  
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TGCGCAGCGTGGGCGTGACCACCATCATTGTGACGCACGACCAGGAGGAGGCGTTGCA CCTGGCGGACAAGGTG  
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CATTATGAAGTTTCGTGGGCGAGACCAACGTGGTGC CGGCCACGTGCTGCTGGCCAAGCGCATGCGCTTCAACA  
CCTCCAAGACCAGCGTCATGTTCCGGCCGCACGACATTAAGCTGTTCAAGACGGTGCCGCCGGAGAGCGGCGAG  
GGCGCGCTGACCACGGTGGGCGCCAACGTGGCGGACAAAGCCAACCTGGGCTGGGTGGTCAAGTACACGCTGCG  
CTTCGATGACGACGTGGAGTGCGAGCTGCAGCTCAGCCGCGAC CAGGACGAGCGCGAGTACAACCTGGTGGTGG  
GCAGCCGCGTGTTCGTGCA CGTGCCGCACCGCACCATGATGGGCTTCAACGCCAGCGACGTGGACAGCACGCCC  
ATCGTGTAATGTGCGGGGTTGGCGGCTGTGGCCAGCGATTGTTGCAATGCAGTCCAGCGTGCTCTTGGTTTGGT  
TCCAGTGACACCCATCCAGGGCACAGGTC CCTGAGCAGCGGGTGTTGGTGATGGGTTGGAGCAGTTGTACCCGA  
TTCTCGCATGCAAGGGGGCGGGGCGCCCA CGGGGTGGGAGAGCGGAATGGCGGTGAGGTGGGCTACTGCATGCG  
GCCGTGGAGGAACGGAGGGGTGCACAGGCGGGCAGGTAGACAGGCGGAGCGGGCTGGGTGAGCGGGGCTGTAGT  
TTGGGGGTGGAGGCCGTGCAGACTGGTTGGGATACTGACAGATCAATGAGCGGCGTCTGCTCCATGGGTGAGTA  
GGAGAGCGGTGTGGGTGTGTG CAGTTGCGAGTTCTGGAGCGTTGTGCGCCTCGCGCTGTGTGCGCGCGCCCGTG  
CGTCTGCGGGCGCTGTGCGAGACGGGCGATGTACATGAAGCTGGACCTGGGCCTGTCT CACAAATATCCCTTAT  
GTTAATAGTAGGATGTGCAATCGTGCCTTGGAGCCCACCTGATGTGTGTGTGTCACAGGTGGCAGTAGTTTGGCC  
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TGAAACCATGCATCATGCGTGCTATCAGGAGATGCAGACGGCGGATTGCTGCCAAAATGTTCTGTTGTTGGTGT  
GCAGACTTGGTGGCGAAGGGGCCAGGCGC CCAGGGGTATGCTGCGTGCCAAGGAGCTGCTGCCGCCACGAGTGA  
CCAGCGAACTTGTAATTGAATATTGTATCCT (SEQ ID NO: 05)

FIG. 22

GGGCAGCGTATAAGTAATGTCGTTCTTGGCTCCAGCTTAGGCGTCGCGCGGGGGATTCTGGAGCCGGCGAGTGC  
AGCGAGGCCGCTGCGCACGCGGCCGGTCACGCACCCGTTCTAACAAGCGATAGGACTGGTGGACCTGCCGCTAA  
TCATGACAGGCCTGCCGGTGCTCCAGCCCCCATGCGGCGTCGTTGACGCCCTCCAGCAGCGGGCAAGCAAGCCA  
GCAAGGCGACCCCCAGCGCTCGCAGCACCAGCAAGCGCAGCGCCAGGACCAGCAGCAGTCGCAGTCGCGGTGCT  
CCAATCACACCTCATCACCGCGGCCACGCTGCTGCCAGCCCTGCCGCTCCGCTCCCGGCGGCAACGGCGACGG  
CGATGGCGGCGAAGCTGCGGGGCCGAGCCGCTCGCGGACGTGCGGGCTCAGCGCGCGGAGGTTGTGCTGACGCT  
GGCGTCGTTGCGGGTGACCAAGCTGGCGTACGTGCGTGTGACGCGCGCGTTCCGGGAGTGGTACGAGCGCACGAA  
GGGCGTGGATGTGCGCTTCCGCCTCACCTTCGCGCCAGTGGCGTGCAGGCCCCGCGCGTGATCGATGGCCTGCC  
CGCCGACATCGTGGCCCTGGCGCTGCCTCTGGACCTGGACAAGATCGTGTGCGCGGGGCTGATCCGGCCCCGACTG  
GCGCAGCGCCTACCCGGCAGCCAGCGTGGTGTGCGAGACCACCGTGGCGTTCTGTGGTGCGCCAGGGCAACCCCA  
GAACATCCGCACCTGGGAGGACCTCACGCGGGCGGGTGTGGAGGTGGTGTGCTGGCCAACCCCAAGACCGCCGGAGT  
GGCCAGGTGGATCTTCCTGGCCCTGTGGGGCGCCAAGATGAAGAAGGGCAACGCCGCCGCGCTGGCGTATGTGCA  
GCGCGTGTTCGAGAACGTGGTGGTGCAGCCGCGTGATGCGCGGAGGCGTCGGACGTGTTCTATAAGCAGAAGGT  
GGGCGACGTGCTGTTGACGTACGAGAACGAGGTGATCCTGACCAACGAGGTGTACGGCGCAAGGCGCTGCCGTA  
CCTGGTGCCCTCCTACAAATCCGCATCGAGTGCCCGCTGGCGCTGGTGGACAAGGTGGTGGATGCCCGCGGCC  
CGAGGTGCGCGAGGCGGCGTCCGAGTTCTGCCGTTTCTGTTACGCCCCGCGCGCAGCACGAGTTCGCGCGGCT  
GGGCTTCCGCGTGAACCCGCGCACCTGCAAGGAGGTGGCGGCGCAGCAGACCGGACTGCCGCCCGCAAACCTGTG  
GCAGGTGGACAAGGAGCTGGGCGGCTGGGCTGCGGCCCAGAAGAAGTTTTTCGACGCTGGCGCCATCCTTGACGA  
CATCCAGTCCGCCGTGGGCAAGCTGCGTGTGGAGCAGCGCAAGGCGGCGCAGGCGGCGCCAGGCGGTAGAGAGA  
CGCGGTACAAGTGCTCGGGTGCTCAGCAGGAGCTGCAGCAGGGGCAGCAAGAGGGCCTTGACAGGAGGGAATGGT  
AGGCAAAGGCGGCAGGGGAGGCGGATGGCGGATGAAGTGAGGTTGTGCAAGCAGCGATGTGTGCCAAGGACGG  
TGTGCGCGATGTACATGATAACATGAGGAGACAGGAGCATCTCCTGGCAGGAGGCGGCAACCGTGGAGTGTCTGA  
AAGGAGAACTTGATTGCTCAGTGTGGGACAGATAACGAGGGCGGGGTGTGGGGCGTGGGGCTTATCGGTGTGCT  
TCTATGGGAGGCGCTGACTGCATTGGGGGCGACGTAGTGTGATGGCCGCTACACGCTTGCTCGGAACTGACATAA  
ACAGGCGTTCAGGCCATGGCTGCATGAGGCTTGATGTGCTATCGCGGACTGTC (SEQ ID NO: 06)

FIG. 23

MASTTLLQPALGLPSRVGPRSPLSLPKIPRVCTHTSAPSTSKYCDSSSVIESTLGRQTSV  
AGRPWLAPRPAPQQSRGDLLVSKSGAAGGMGAHGGGLGEPVDNWIKKLLVGVAAYIGLV  
VLVPFLNVFVQAFAGIIPFLEHCADPDFLHALKMTLMLAFVTVPLNTVFGTVAAINLTR  
NEFPGKVFLMSLLDLPFSSIPVVTGLMLTLLYGRTGWFAALLRETGINVVFAFTGMALAT  
MFVTLPPFVVRELIPILENMDLSQEEAARTLGANDWQVFWNVTLPNIRWGLLYGVIILCNAR  
AMGEFGAVSVISGNIIGRTQTLTLFVESAYKEYNTEAAFAAAVLLSALALGTLWIKDKVE  
EAAAESRK\* (SEQ ID NO: 07)

FIG. 24

MASLLAQTT SRLGAR PAAQAGPVAQMAPMASRVQPAMPSALLPLHARATTTSVAC  
RAASIDKPVVYTPRDSSQQSSNGAGEVSMSSISSMDEVGPSYEGIIITDAPTRPTGL  
YVRVRNMVKHFSTAKGLFRAVDGVDVDIEPSSIVALLGPSGSGKTTLLRLIAGLE  
QPTGGNIYFDDTDATNLSVQDRQIGFVFQSYALFNHKTVAENIKFGLEVRKLNID  
HDKRVAELLALVQLTGLGDRYPRQLSGGQRQVALARALASNPRLLLLDEPFGAL  
DAVVRKQLRTGLREIVRSVGVTIIIVTHDQEEAFDLADKVVVFNRGLVEQQGSPT  
EIIKRPRTPFIMKFVGETNVVPATSLLAKRMRFNTSKTSVMFRPHDIKLFKTVPP  
ESGEGALTTVGANVADKANLGWVKYTLRFDDDDVECELQLSRDQDEREYNLVXGS  
RVFVHVPHRTMMGFNASDVDSTPIV\* (SEQ ID NO: 08)

FIG. 25

MSFLAPSLGVARGILEPASAARPPAHAAGHAPVLTSDRTGGPAANHDRPAGAPSPH  
AASLTPSSSGQASQQGDPQRSQHQAQRQDQQSQSRSLSHLITAATLLPALPPPP  
PGGNGDGDGGEAAGPQPLADVAAQPPEVVLTASFVTKLAYVRVTRAFREWYE  
RTKGVDVRFRLTFAASGVQARAVIDGLPADIVALALPLDLDKIVSAGLIRPDWRS  
YPAASVVCETTVAFVVRQGNPKNIRTWEDLTRAGVEVVLANPKTAGVARWIFLAL  
WGAKMKKGNAALAYVQRFENVVQPRDAREASDVFYKQKVGDVLLTYENEV  
ILTNEVYGDKALPYLVPSYNIRIECPLALVDKVVDARGPEVREAASEFCRFLFTPAA  
QHEFARLGFRVNPRTCKEVAAQQTGLPPANLWQVDKELGGWAAAQKKFFDAGAI  
LDDIQSAVGKLRVEQRKAAQAAARR\* (SEQ ID NO: 09)

FIG. 26

FIG. 27

# Chloroplast Sulfate Transport System

